U.S. Department of the Interior
Bureau of Land Management
Little Snake Field Office
455 Emerson Street
Craig, CO 81625-1129

ENVIRONMENTAL ASSESSMENT

EA NUMBER: DOI-BLM-CO-N010-2010-0042-EA

PROJECT (RIPS) NUMBER: 008864

PROJECT NAME: Willow Creek Mule Deer Habitat Improvement

LEGAL DESCRIPTION: Near Baggs, WY (40 miles North of Craig, CO). T12N R90W Section 31

APPLICANT: Bureau of Land Management (BLM)

PLAN CONFORMANCE REVIEW: The Proposed Action and Alternatives are subject to the following plan:

Name of Plan: Little Snake Resource Management Plan and Record of Decision

Date Approved: April 26, 1989

Results: pg 38. The proposed project is within Management Unit 2. Management Objectives for Unit 2 are to provide for the development of the oil and gas resources. Wildlife habitat projects are allowed provided they are compatible with oil and gas development.

NEED FOR PROPOSED ACTION: The BLM Little Snake Field Office is proposing to implement a treatment of encroaching juniper on public lands in order to improve mule deer winter habitat. The following Environmental Assessment will analyze the impacts of mechanical treatment on BLM managed lands.

PUBLIC SCOPING PROCESS: The project is listed on the NEPA log on the Little Snake Field Office website January 15, 2010.

BACKGROUND: The proposed treatment of encroaching juniper is located in an area with old growth (approx.100-200 years old) pinyon and juniper trees. The entire project would occur on lands managed by the BLM. This project is intended to improve winter habitat for mule deer.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES: The Proposed Action is to mechanically treat approximately 220 acres to improve mule deer winter habitat. The project would involve removing 220 acres of old growth (approx. 100-200 years old) pinyon and juniper trees. This would be done with a large rubber tired tractor (similar to a skidder) with a 6' – 8' mulching head to shred and mulch trees up to 20" diameter. The treatment would leave small branches and wood chunks from pencil size up to bowling ball size. The mulch would be evenly scattered across the surface and stumps would be ground down to a height of 6" or less.

The area must have a Class III cultural resource survey and impacts to any eligible sites must be mitigated prior to implementation. The following standard stipulations apply for this project:

1. The operator is responsible for informing all persons who are associated with the operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are encountered or uncovered during any project activities, the operator is to immediately stop activities in the immediate vicinity of the find and immediately contact the authorized officer (AO) at (970) 826-5000. Within five working days, the AO will inform the operator as to:

- Whether the materials appear eligible for the National Register of Historic Places;
- The mitigation measures the operator will likely have to undertake before the identified area can be used for project activities again; and
- Pursuant to 43 CFR 10.4(g) (Federal Register Notice, Monday, December 4, 1995, Vol. 60, No. 232) the holder of this authorization must notify the AO, by telephone at (970) 826-5000, and with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

2. If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation costs. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume operations.

NO ACTION ALTERNATIVE: The habitat improvement project would not occur under the No Action Alternative.

AFFECTED ENVIRONMENT/ENVIRONMENTAL CONSEQUENCES/MITIGATION MEASURES

CRITICAL RESOURCES

AIR QUALITY

Affected Environment: Air quality in the vicinity of the project area is considered to be in compliance with the National Ambient Air Quality Standards. There are six Class 1 (visibility) areas within 100 km of the resource area, two of which are in northwest Colorado (Mt. Zirkel Wilderness and Flat Tops Wilderness). There are no federal Class 1 areas in Utah or Wyoming within 100 km of the resource area.

Environmental Consequences, Proposed Action: Mechanical treatments proposed would not affect air quality other than localized short term dust production.

Environmental Consequences, No Action: There would be no impacts to air quality.

Mitigative Measures: None.

Name of specialist and date: Timothy Novotny 1/14/10

AREA OF CRITICAL ENVIRONMENTAL CONCERN

Affected Environment: Not Present.

Environmental Consequences, all alternatives: None.

Mitigative Measures: None.

Name of specialist and date: Kimberly Miller 1/11/10

CULTURAL RESOURCES:

Affected Environment: Cultural resources in this region of Colorado range from late Paleo-Indian to Historic. For a general understanding of the cultural resources in this area of Colorado, see *An Overview of Prehistoric Cultural Resources, Little Snake Resource Area, Northwestern Colorado,* BLM Colorado, Cultural Resources Series, Number 20, *An Isolated Empire, A History of Northwestern Colorado*, BLM Colorado, Cultural Resource Series, Number 2 and *Colorado Prehistory: A Context for the Northern Colorado River Basin*, Colorado Council of Professional Archaeologists.

Environmental Consequences: The proposed project, Willow Creek Mule Deer Habitat Improvement, has not undergone a Class III cultural resource survey. A Class III cultural resource survey must occur prior to the implementation of the project.

Mitigative Measures: None.

Name of specialist and date: Robyn Watkins Morris 1/13/10

ENVIRONMENTAL JUSTICE

Affected Environment: The proposed action is located in an area of isolated dwellings. Ranching, farming, and oil and gas development are the primary economic activities.

Environmental Consequences, Proposed Action: The project area is relatively isolated from population centers, so no populations would be affected by the proposed action. The proposed action would not affect the social, cultural or economic well-being and health of Native American, minority or low-income populations.

Environmental Consequences, No Action: None.

Mitigative Measures: None.

Name of specialist and date: Barb Blackstun 01/12/10

FLOOD PLAINS

Affected Environment: Willow Creek flows along the western boundary of the proposed project.

Environmental Consequences, all alternatives: Floodplains associated with Willow Creek will not be impacted by the proposed project.

Mitigative Measures: None.

Name of specialist and date: Timothy Novotny 1/14/10

INVASIVE, NONNATIVE SPECIES

Affected Environment: Invasive and noxious weeds are present in the affected area. Invasive annuals such as downy brome (cheatgrass), yellow alyssum and bur buttercup commonly occur in the project area at acceptable levels. Invasive annual weeds such as these are typically established on disturbed and concentrated use areas, whereas, biennial and perennial noxious weeds are less common in occurrence. Downy brome is on the Colorado List C of noxious weeds. New weed infestations can be introduced from vehicles or animals carrying seed from other areas. The BLM cooperates with the Moffat County Cooperative Weed Management program to employ the principals of Integrated Pest Management to control noxious weeds on public lands.

Environmental Consequences, Proposed Action: The threat of weed establishment following mechanical treatments is relatively low because little soil disturbance occurs. Equipment used with the project should be weed free prior to entering the area. Adequate desirable vegetation exists in the understory to maintain a healthy plant community.

Environmental Consequences, No Action: There would be no new threats from invasive or nonnative plant species.

Mitigative Measures: None.

Name of specialist and date: Christina Rhyne 1/12/10

MIGRATORY BIRDS

Affected Environment: The pinyon jay and juniper titmouse may nest in the pinyon juniper woodlands associated with this proposed project. Both bird species are listed on the USFWS 2008 Birds of Conservation Concern List. There are no known raptor nests in the project area.

Environmental Consequences, Proposed Action: Individual birds would likely be displaced from the area during project implementation due to noise and an increase in human presence. There is a moderate chance for take to occur however; there will be no adverse impacts to either species populations.

Environmental Consequences, No Action Alternative: There would be no chance of take from the No Action Alternative.

Mitigative Measures: None.

Name of specialist and date: Timothy Novotny 1/12/10

NATIVE AMERICAN RELIGIOUS CONCERNS

A letter was sent to the Eastern Shoshone, Uinta and Ouray Tribal Council, Southern Ute Tribal Council, Ute Mountain Ute Tribal Council on May 26, 2009. The letter listed the FY2010 projects that the BLM would notify them on and projects that would not require notification. A followup phone call was performed on July 26, 2009. No comments were received (Letter on file at the Little Snake Field Office). This project requires no additional notification.

Name of specialist and date: Robyn Watkins Morris 1/13/10

PRIME & UNIQUE FARMLANDS

Affected Environment: No Prime and/or Unique Farmlands are present in the vicinity of the proposed project.

Environmental Consequences, all alternatives: None.

Mitigative Measures: None.

Name of specialist and date: Timothy Novotny 1/14/10

T&E AND SENSITIVE ANIMALS

Affected Environment: There are no threatened or endangered species or habitats for such species within the proposed project area.

Environmental Consequences, all alternatives: None.

Mitigative Measures: None.

Name of specialist and date: Timothy Novotny 1/12/10

T&E AND SENSITIVE PLANTS

Affected Environment: There are no federally listed threatened or endangered or BLM sensitive plant species present within or in the vicinity of the proposed treatment.

Environmental Consequences, all alternatives: None.

Mitigative Measures: None.

Name of specialist and date: Hunter Seim 1/12/10

WASTES, HAZARDOUS OR SOLID

Affected Environment: There are no known hazardous materials within the project area.

Environmental Consequences: There is the potential that oil or coolants could be released from equipment, however the potential for this to occur is small. If a release does occur, the environment affected would be dependent on the nature and volume of material released. In most every situation involving hazardous materials, there are ways to remediate the area that has been contaminated. Short-term consequences would occur, but they can be remedied, and long-term impacts would be minimal. If there are no releases, there would be no impact on the environment.

Environmental Consequences, No Action Alternative: None.

Mitigative Measures: None.

Name of specialist and date: Timothy Novotny 1/14/10

WATER QUALITY - GROUND

Affected Environment: The surface formation is the Wasatch formation.

Environmental Consequences, all alternatives: None.

Mitigative Measures: None.

Name of specialist and date: Marty O'Mara 10/19/10

WATER QUALITY - SURFACE

Affected Environment: All of the lands within the project area drain towards Willow Creek. Willow Creek is a perennial tributary of the Little Snake River. The water quality of Willow Creek and its tributaries needs to support Aquatic Life Cold 1, Recreation E, Water Supply, and Agriculture. The water quality of the Little Snake River needs to support Aquatic Life Cold 1, Recreation 1a, Water Supply, and Agriculture.

Environmental Consequences, Proposed Action: Minimal surface disturbance would occur with the proposed mechanical treatments. Little to no affect to water quality would result from implementing the mechanical treatments. The proposed action would have a positive impact to water quality. This would be because of the decreased potential of experiencing a high intensity wildfire and the expected increase in plant diversity and ground cover, resulting from the planned treatments.

Environmental Consequences, No Action Alternative: None.

Mitigative Measures: None.

Name of specialist and date: Timothy Novotny 1/14/10

WETLANDS/RIPARIAN ZONES

Affected Environment: Willow Creek runs along the western border of the project area. Two reaches of Willow Creek exist within the project area. Both reaches were assessed in 2006. Both were found to be Functioning At Risk with an upward trend. Reasons for these ratings include upstream water diversions, high banks in places. It was noted that several beaver dams were being built from sagebrush branches and mud.

Environmental Consequences, Proposed Action: The mechanical treatment of juniper trees will not have an impact on riparian zones. Equipment used for the treatment may cross Willow Creek at an existing crossing on the west side of the project area. This could result displacement of sediment in the creek and short term increase in turbidity. There is potential for bank damage to occur at the crossing as well.

Environmental Consequences, No Action Alternative: There would be no impacts to wetlands or riparian zones as a result of the No Action Alternative.

Mitigative Measures: None.

Name of specialist and date: Timothy Novotny 1/12/10

WILD & SCENIC RIVERS

Affected Environment: Not Present.

Environmental Consequences, all Alternatives: None.

Mitigative Measures: None.

Name of specialist and date: Kimberly Miller 1/11/10

WSAs, WILDERNESS CHARACTERISTICS

Affected Environment: Not Present.

Environmental Consequences, all Alternatives: None.

Mitigative Measures: None.

Name of specialist and date: Kimberly Miller 1/11/10

NON-CRITICAL ELEMENTS

FORESTRY

Affected Environment: The area is predominately old growth juniper woodland. Trees range in age from approximately 150 years old to 250+ years old. Tree density is approximately 100 – 200 stems/acre. This is not an important area for wood products due to the remote location, although some isolated firewood cutting does occur.

Environmental Consequences, Proposed Action: The proposed action would involve the removal of 100% of the trees over the 220 acre project area. The resulting mulch produced from tree mastication would have an inhibiting affect on seedling establishment until partially decomposed.

Environmental Consequences, No Action Alternative: None.

Mitigative Measures: None.

Name of specialist and date: Timothy Novotny 1/14/10

RANGE MANAGEMENT

Affected Environment: The Proposed Action falls within the Serviceberry Mountain (#04039) Allotment. Cattle are grazed on the Serviceberry Mountain Allotment from 5/01-07/07.

Environmental Consequences, Proposed Action: The area would not be closed to livestock grazing after the implementation of the Proposed Action. There would be no impacts to the livestock operation of the grazing lessee. The thinning of encroaching juniper trees would likely result in a flush of native grasses in the understory which would draw cattle to the area in higher numbers.

In the long term, the proposed treatment would provide a benefit to livestock management. Opening up closing stands of juniper communities would increase grasses and forbs that are important to livestock. This treatment would increase the density and vigor of key livestock forage species such as western wheatgrass and thickspike wheatgrass, improving the nutritive quality and availability of these species to cattle.

Environment Consequences, No Action Alternative: Increasing juniper replacement of sagebrush communities would reduce key forage grasses and important forbs and reduce the overall grazing capacity of the allotment. Additionally, as diversity declines (a factor of climax conditions in sagebrush and pinyon-juniper communities), this area would become less resilient to impacts from livestock grazing and more susceptible to invasion by exotic annual species such as cheatgrass when inevitable wildfires do occur.

Mitigative Measures: None.

Name of specialist and date: Kathy McKinstry 1/11/10

SOILS

Affected Environment: The Serviceberry Mountain contains the following soils within the project area:

Soil Mapping Unit	Map Unit Setting	Descriptions	Ecological Site
184—Styers-Pinelli-Taffom complex, 10 to 25 percent slopes	*Major Land Resource Area:* 34 *Elevation:* 6,200 to 7,300' *Mean annual precip:* 11 to 13" *Mean annual air temp:* 42 to 45°F *Freeze-free period:* 75 to	*Landform:* Hills *Drainage class:* Well drained *Slowest permeability:* 0.001 to .06 in./hr. (very slow) *Available water capacity:* 4.2" (low)	Claypan

	95 days	*Runoff class:* Very high	

Environmental Consequences, Proposed Action: Soils would be damaged during the project by the equipment. Repeated movement by the machinery would lead to compacted soils, loss of vegetation and erosion. However, these impacts would be lessened by the mulching material left on the ground from the mechanical treatment. The mulch would lessen erosion and increase the water holding capacity of the soils.

Soils amongst juniper stands are typically hydrophobic due to the chemical nature of juniper needles. Removal of junipers from the project area would result improved soil conditions by eliminating the source. This effect would not be apparent for many years until the needles have broken down naturally.

Environmental Consequences, No Action Alternative: Soils would not benefit from mulch under this alternative.

Mitigative Measures: None.

Name of specialist and date: Kathy McKinstry 1/11/10

UPLAND VEGETATION

Affected Environment: The range site found within the proposed project area is a claypan. The claypan range site typically supports alkali sagebrush, western wheatgrass, bluebunch wheatgrass, pine needlegrass, prairie junegrass, Nevada bluegrass, and muttongrass. Other grasses are Sandberg bluegrass, thickspike wheatgrass, and streambank wheatgrass. The major forbs are native clovers, buckwheat, Hoods phlox, rose pussytoes, tapertip onion, daisy fleabane, and aster. Stickyleaf low rabbitbrush and fringed sagebrush are other shrubs.

Environmental Consequences, Proposed Action: This treatment would have impacts similar to hand thinning juniper stands. In sagebrush and mountain shrub communities, this treatment would have the effect of maintaining and improving the shrub, forb, and grass components of shrub dominated plant communities by reducing or eliminating the increasing competition of pinyon juniper for water and nutrients. Additionally, juniper possesses strong allelopathic characteristics which strongly suppress other competing plants once the stands become established. This treatment would eliminate threats to existing shrub dominated communities by arresting juniper allelopathy.

Environmental Consequences, No Action Alternative: Under this alternative, no mechanical treatment would occur within the juniper dominated plant community in the proposed project area. Disturbances, especially fire, could occur at some point and in an uncontrolled manner. Depending upon when such events occur, heavy fuel buildups could lead to hot, extensive burns within the other plant communities resulting in widespread type-conversions within the plant communities.

Mitigative Measures: None.

Name of specialist and date: Kathy McKinstry 1/11/10

WILDLIFE, AQUATIC

Affected Environment: Willow Creek runs along the western border of the project area. Willow Creek is capable of supporting non-game fish species such as speckled dace, mottled sculpin and minnows.

Environmental Consequences, Proposed Action: The mechanical treatment of juniper trees will not have an impact on aquatic wildlife habitat. Equipment used for the treatment may cross Willow Creek at an existing crossing on the west side of the project area. This may result in displacement of sediment in the creek and short term increase in turbidity. There is potential for bank damage to occur at the crossing as well. If this damage does occur, it will not impact any fish species populations.

Environmental Consequences, No Action Alternative: None.

Mitigative Measures: None.

Name of specialist and date: Timothy Novotny 1/12/10

WILDLIFE, TERRESTRIAL

Affected Environment: The proposed project area provides year round habitat for mule deer and elk. Both mule deer and elk may avoid using the area during the hardest winters when snow depths prevent use. Pronghorn antelope are not likely to use the project area in its current condition. A variety of small mammals, song birds and reptiles may also be found within the project area at various times of the year. The proposed mechanical treatment would treat approximately 220 acres of pinyon juniper habitat.

Environmental Consequences, Proposed Action: The Proposed Action would displace most wildlife species during the actual treatment. Once the treatment is completed, displaced wildlife would return to the project area. The proposed treatment would also increase pronghorn antelope use of the project area. Some song birds that depend on juniper for nesting habitat would be displaced from the project area. Species that use early successional habitats and sage-brush dominated habitats would benefit from the treatment.

Environmental Consequences, No Action Alternative: There would be no impacts to terrestrial wildlife or their habitats.

Mitigative Measures: None.

Name of specialist and date: Timothy Novotny 1/12/10

OTHER NON-CRITICAL ELEMENTS: For the following elements, those brought forward for analysis will be formatted as shown above.

Non-Critical Element	NA or Not Present	Applicable or Present, No Impact	Applicable & Present and Brought Forward for Analysis
Fluid Minerals		EMO 01/19/2010	
Forest Management			See Forestry
Hydrology/Ground		EMO 01/19/2010	
Hydrology/Surface			See Water Quality/Surface
Paleontology		EMO 01/19/2010	
Range Management			See Range Mgmt.
Realty Authorizations		BSB 01/12/10	
Recreation/Travel Mgmt		KMM, 1/11/10	
Socio-Economics		BSB 01/12/10	
Solid Minerals		JAM 1/11/10	
Visual Resources		KMM, 1/11/10	
Wild Horse & Burro Mgmt	KLM, 01/11/10		

CUMULATIVE IMPACTS SUMMARY: The project area is utilized by people for hunting, camping, antler "hunting" and livestock grazing. BLM lands within the project area are within a travel restricted area. The Proposed Action to remove juniper trees to improve mule deer habitat in this area is compatible with other uses, both historic and present, and would not add any new or detrimental impacts to those already present.

STANDARDS

PLANT AND ANIMAL COMMUNITY (animal) STANDARD:

The proposed mechanical treatment of juniper trees would result in the short term displacement of most wildlife from the project area while the treatment is completed. Most wildlife would return to the project area once these activities are completed. Species that are dependent upon juniper trees are not likely to return to the project area. Sufficient juniper habitat exists in areas adjacent to the treatment area that is capable of supporting any displaced wildlife. This standard is currently being met and would continue to be met under the Proposed Action.

The No Action Alternative would not have any impact on wildlife species. This standard is currently being met and would continue to be met under this alternative.

Name of specialist and date: Timothy Novotny 1/12/10

SPECIAL STATUS, THREATENED AND ENDANGERED SPECIES (animal) STANDARD:

There are no threatened, endangered or special status species or habitats for such species within the project area. This standard does not apply.

Name of specialist and date: Timothy Novotny 1/12/10

PLANT AND ANIMAL COMMUNITY (plant) STANDARD:

This standard is being met within the Serviceberry Mountain Allotment. The allotment contains healthy, diverse, native plant communities. The present plant communities are vigorous and productive. The Proposed Action would continue to meet this standard as well as increase the diversity and habitat structure of the vegetative community.

The No Action alternative would not increase the diversity or structure of the plant community and would continue to accumulate vegetative litter that could potentially fuel a wildfire. Over time, as the plant community became more dominated by juniper, the monoculture would lead to decreased productivity and vigor. Under this alternative the standard would eventually not be met.

Name of specialist and date: Kathy McKinstry 01/11/10

SPECIAL STATUS, THREATENED AND ENDANGERED SPECIES (plant) STANDARD:

There are no federally listed threatened or endangered or BLM sensitive plant species present within or in the vicinity of the proposed treatment. This standard does not apply.

Name of specialist and date: Hunter Seim 1/12/10

RIPARIAN SYSTEMS STANDARD:

The portions of Willow Creek adjacent to the project area were assessed in 2006. At that time it was determined that this creek was Functioning At Risk with and upward trend. Reasons for these ratings include upstream water diversions, high banks in places. The proposed mechanical treatment should not have any impact on this creeks functioning condition. This standard is currently being met and would continue to be met in the future.

Name of specialist and date: Timothy Novotny 1/12/10

WATER QUALITY STANDARD:

The water quality standard for healthy rangelands is met for the project area under each of the alternatives. Runoff from snowmelt and storms flows into Willow Creek which has some wetland and stable ephemeral floodplain areas to help filter sediment, nutrients and other nonpoint sources of contamination. No impaired stream segments exist within the affected area.

Name of specialist and date: Timothy Novotny 1/14/10

UPLAND SOILS STANDARD:

The upland soil standard for healthy rangelands is currently being met for the proposed project area. Implementation of the Proposed Action would remove protective woody vegetation from the site but by leaving the mulch cover, combined with the long term re-growth of alternate vegetation; overall soil erosion would be minimal. The soil disturbance that would occur within the treatment area would be short-term and somewhat confined. This standard is currently being met and will continue to be met under the Proposed Action.

The No Action Alternative would also continue to meet the upland soils standard; however, the possibility for a large, stand conversion type fire is greater under this alternative. Wildland fires would destroy the native vegetation and could allow cheatgrass and other annual weeds to invade. Increased erosion of the upland soil resource would occur in these areas over time as the conversion to plants that are less capable of protecting soils proceeds. Eventually upland soil health could be diminished over large areas within the allotment.

Name of specialist and date: Kathy McKinstry 01/11/10

PERSONS/AGENCIES CONSULTED: Uintah and Ouray Tribal Council, Colorado Native American Commission, Colorado State Historic Preservation Office.

ATTACHMENTS: Attachment 1 Project Area Map

SIGNATURE OF PREPARER:

DATE SIGNED:

SIGNATURE OF ENVIRONMENTAL REVIEWER:

DATE SIGNED:

Finding of No Significant Impact

The environmental assessment, analyzing the environmental effects of the proposed action, has been reviewed. With the implementation of the attached mitigation measures there is a finding of no significant impact on the human environment. Therefore, an environmental impact statement is not necessary to further analyze the environmental effects of the proposed action.

1. Beneficial, adverse, direct, indirect, and cumulative environmental impacts have been disclosed in the EA. Analysis indicated no significant impacts on society as a whole, the affected region, the affected interests or the locality. The physical and biological effects are limited to the Little Snake Resource Area and adjacent land.

2. Public health and safety would not be adversely impacted. There are no known or anticipated concerns with project waste or hazardous materials.

3. There would be no adverse impacts to regional or local air quality, prime or unique farmlands, known paleontological resources on public land within the area, wetlands, floodplain, areas with unique characteristics, ecologically critical areas or designated Areas of Critical Environmental Concern.

4. There are no highly controversial effects on the environment.

5. There are no effects that are highly uncertain or involve unique or unknown risk. Sufficient information on risk is available based on information in the EA and other past actions of a similar nature.

6. This alternative does not set a precedent for other actions that may be implemented in the future to meet the goals and objectives of adopted Federal, State or local natural resource related plans, policies or programs.

7. No cumulative impacts related to other actions that would have a significant adverse impact were identified or are anticipated.

8. Based on previous and ongoing cultural surveys, and through mitigation by avoidance, no adverse impacts to cultural resources were identified or anticipated. There are no known American Indian religious concerns or persons or groups who might be disproportionately and adversely affected as anticipated by the Environmental Justice Policy.

9. No adverse impacts to any threatened or endangered species or their habitat that was determined to be critical under the Endangered Species Act were identified. If, at a future time, there could be the potential for adverse impacts, treatments would be modified or mitigated not to have an adverse effect or new analysis would be conducted.

10. This alternative is in compliance with relevant Federal, State, and local laws, regulations, and requirements for the protection of the environment.

SIGNATURE OF AUTHORIZED OFFICIAL:

DATE SIGNED

Attachment 1 Project Area Boundry
T 12N R 90W Sec 30, 31 & T 11N R 90W Sec 6